

## Exhibit B-1



**Solutions for a nanoscale world.**



# VEECO INSTRUMENTS INC.

**SMITH BARNEY CITIGROUP  
2004 TECHNOLOGY CONFERENCE**

**SEPTEMBER 8, 2004**

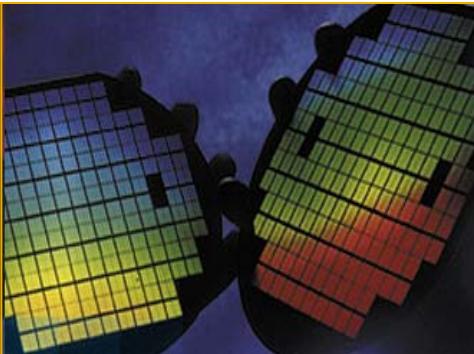
**Ed Braun  
Chairman & CEO**

# VEECO PROVIDES ENABLING NANOSCALE PROCESS EQUIPMENT AND METROLOGY SOLUTIONS TO MULTIPLE GROWTH MARKETS

## Data Storage



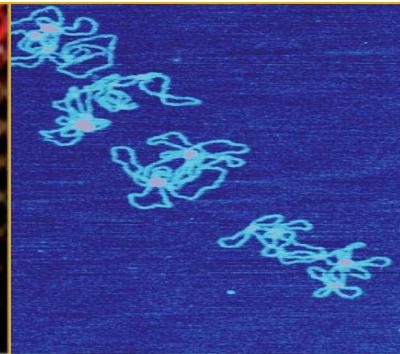
## Semiconductor



## Compound Semi/Wireless



## Scientific Research



80 and 160 GB; microdrives

90 and 65 nm; 300mm

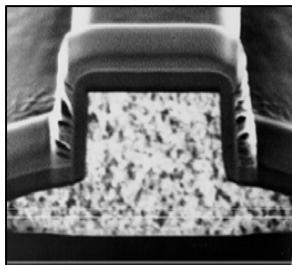
HB-LEDs, WiFi,  
camera cell phones

Nanotech & Life Science

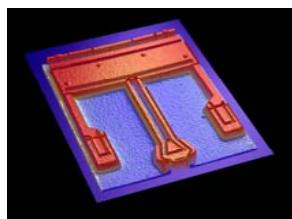
# VEECO LEVERAGES CORE TECHNOLOGIES IN GROWTH MARKETS

## WHAT WE DO...

### PROCESS EQUIPMENT (ADD AND REMOVE MATERIAL)

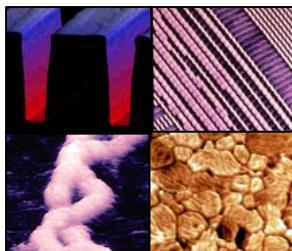


ION BEAM DEPOSITION  
EPITAXIAL DEPOSITION



ION BEAM ETCH

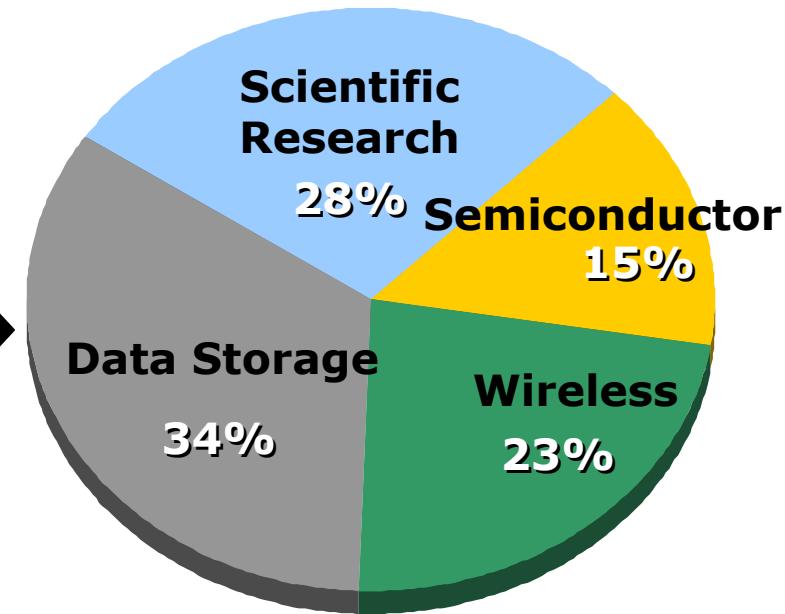
### METROLOGY (IMAGE, MEASURE MANIPULATE)



ATOMIC FORCE MICROSCOPY  
OPTICAL INTERFEROMETRY

## MARKETS WE SERVE...

### 1H '04 REVENUE (\$197.4M; UP 42%)



*Multiple markets provide stable growth offsetting individual market volatility...Broader opportunities than silicon semiconductor*

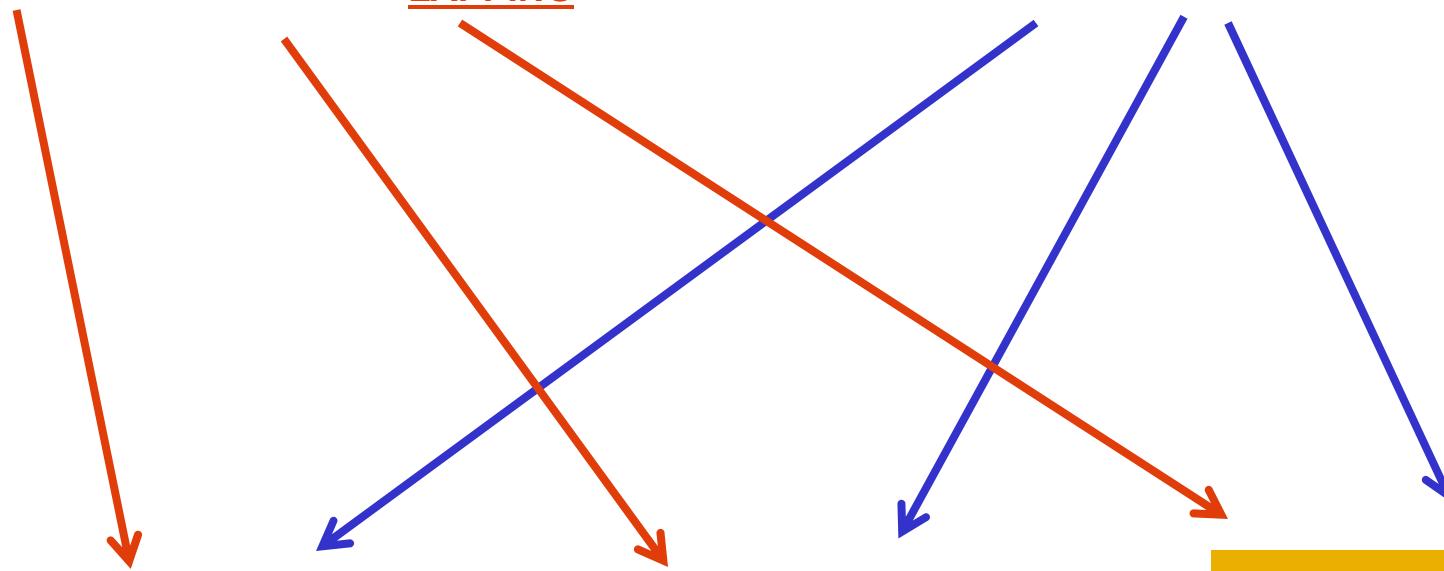
# LEADERSHIP TECHNOLOGIES SERVING MULTIPLE MARKETS

## PROCESS EQUIPMENT

IBE PVD IBD MBE MOVCD PRECISION LAPPING

## METROLOGY

ATOMIC FORCE MICROSCOPY, OPTICAL PROFILOMETERS



**DATA STORAGE**

**SEMI/WIRELESS**

**SCIENTIFIC RESEARCH**

***USE PRODUCT LEADERSHIP TO CREATE CRITICAL MASS  
IN KEY MARKETS, AT KEY ACCOUNTS***

# SERVING INDUSTRY LEADERS

## MARKETS

**Data Storage**

*#1 Equipment Supplier for TFMHs;  
Etch, Deposition, Lapping and Metrology*

**Wireless & Compound Semi**

*Only Broad line Equipment and Metrology Supplier  
MBE, MOCVD (Epitaxial Deposition) and Metrology*

**Semiconductor**

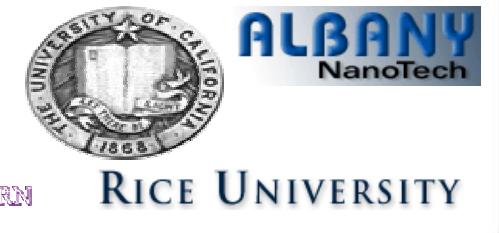
*#1 3D AFM Metrology  
Automated Atomic Force Microscopy and Optical Profilers*

**Scientific Research**

*#1 AFMs, SPMs and Optical Profilers  
Breadth of research solutions*

## PRODUCTS

*#1 Equipment Supplier for TFMHs;  
Etch, Deposition, Lapping and Metrology*



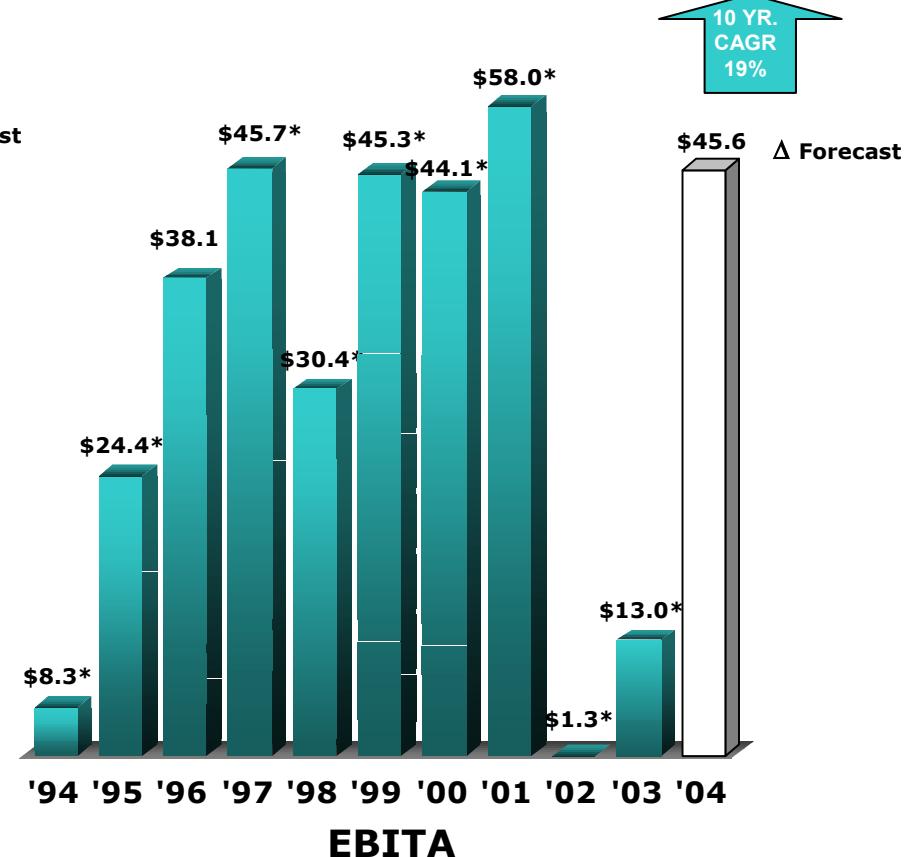
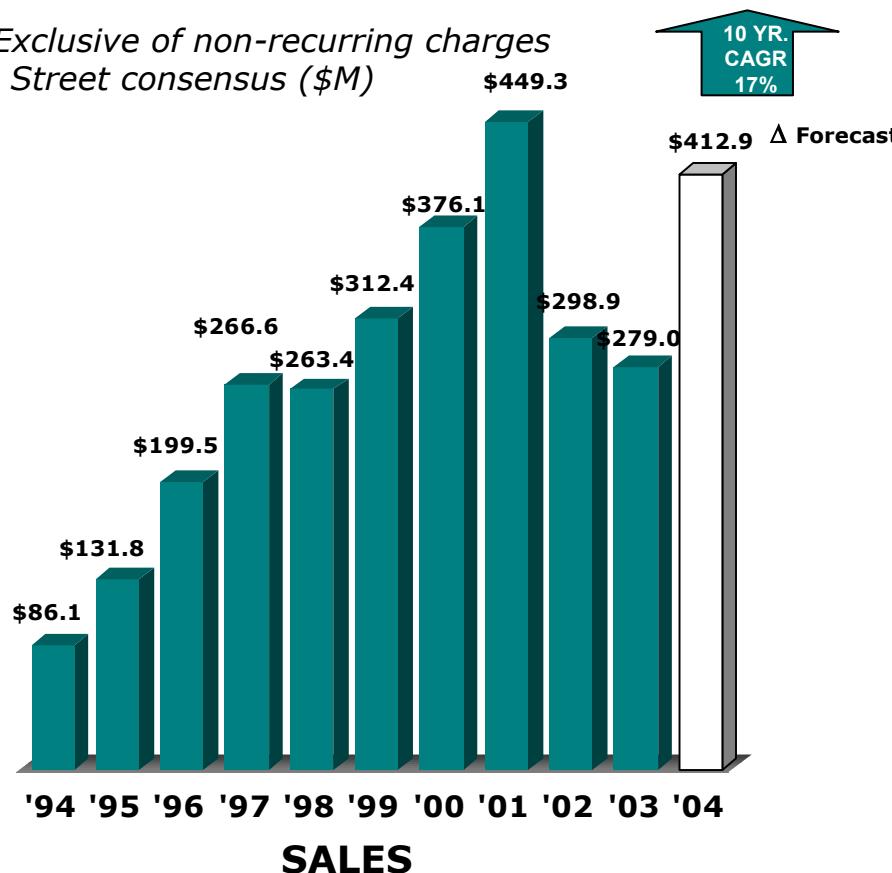
# VEECO 2004 INVESTMENT THEMES

- We are a leading supplier of enabling technology for converging data storage, semiconductor/compound semi and HB LED, color display growth opportunities
- In the post PC era...microdrives, HB LEDs, color displays, and wireless technology will enable a wave of new high volume, digital consumer electronics for mass markets
- A diverse market and product mix allows Veeco a broader customer and product technology base than most other semi equipment companies
- Nanotechnology, smaller form factors, higher density and new materials will drive extensions of:
  - Moore's Law 20nm feature size
  - Areal Density 1 Tb/in<sup>2</sup>
  - Large high resolution, high brightness color displays

# VEECO'S HISTORICAL FINANCIALS AND OUTLOOK

## 2004 Forecast ...a revenue and earnings recovery year

\*Exclusive of non-recurring charges  
 Δ Street consensus (\$M)



- Our Company was founded in 1990 with sales of \$30 million and went public in 1994
- 10 year revenue growth from \$86M to \$413M... +17% CG per year ('94-'04)

# VEECO MULTI-MARKET GROWTH OPPORTUNITY

## Data Storage

Continued 80 GB production ramp, development of next generation 120/ 160 GB drives and advanced development of (perpendicular heads) for 2005/2006. Microdrives to enable new wireless consumer products (Ipod, TiVo, camera/cell phones)

## Semiconductor

Complete 90nm, 300 mm ramp, development of 65nm, 45nm

## Wireless

Explosive growth of Blue LED's for backlighting of color displays, handheld camera/ cell phone, large color screens, PDA, Wi Max, automotive, solid state lighting and RF devices

## Scientific Research

Continued strength of research AFMs/SPMs  
Nanoscience emerges (life sciences, material sciences genomics)

***The content of Veeco's enabling technologies increases in new consumer applications***

# VEECO: EQUIPMENT FOR HIGH GROWTH DIGITAL, WIRELESS CONSUMER PRODUCTS

TiVo



+35.9% CAGR  
'02-'08

HDD for DVR/DVT

GPS



+61.4% CAGR  
'02-'08

HDD for GPS;  
Auto Nav.



+33.6% CAGR  
'02-'08

HDD for Digital  
Cameras, Audio  
Players.

*These consumer products represent the convergence of Semiconductor chips, wireless chips, microdrives, high resolution color displays, and high brightness LEDs*

+145.7% CAGR  
'02-'08

Flat Panel Display  
Backlighting



LCDs Backlighting

+159.2% CAGR  
'02-'08

HB-LED Headlights



LEDs...signs;mobile;  
illumination

Home Media Server

+71.2% CAGR  
'02-'08



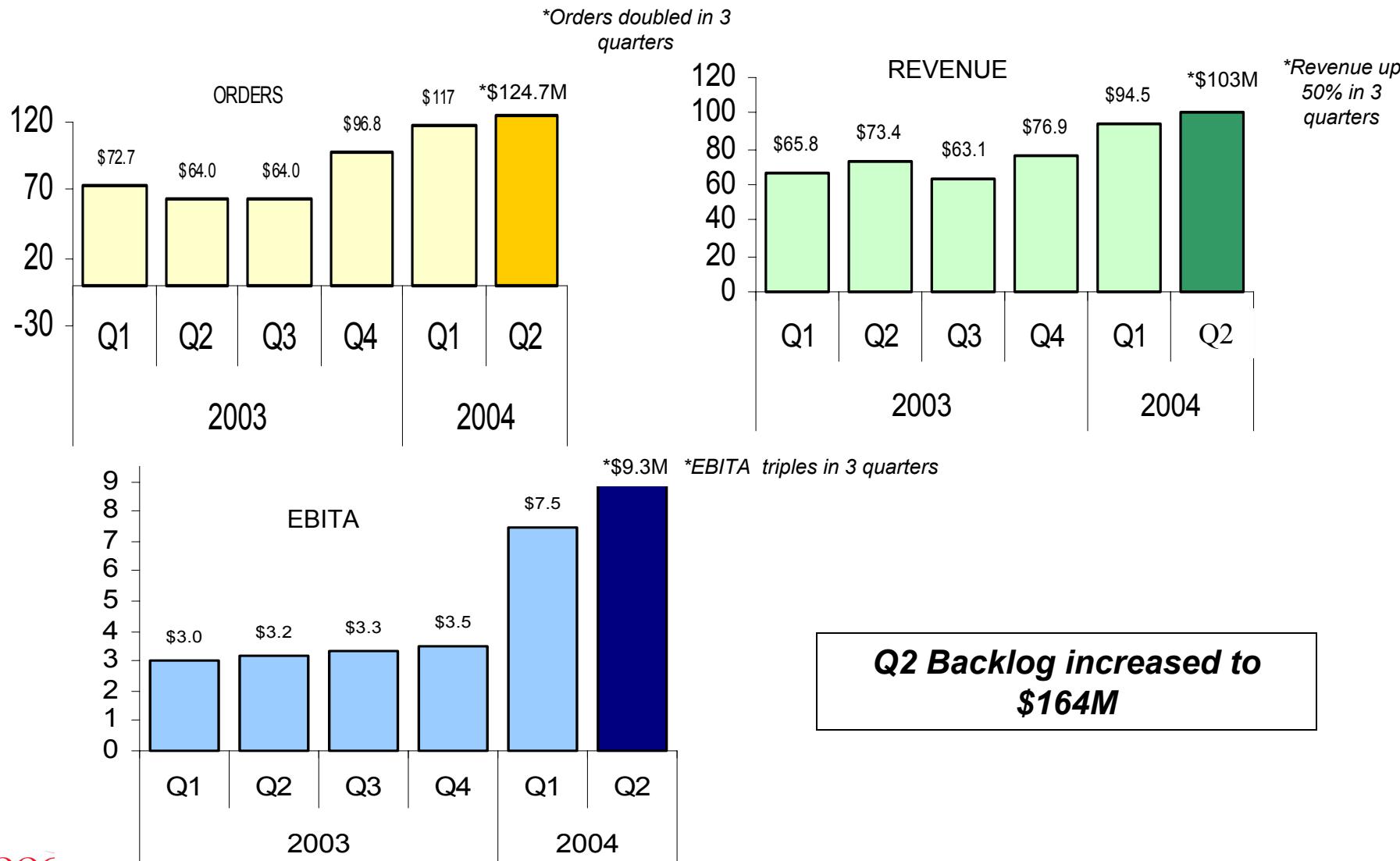
HDDs for Home  
Networking



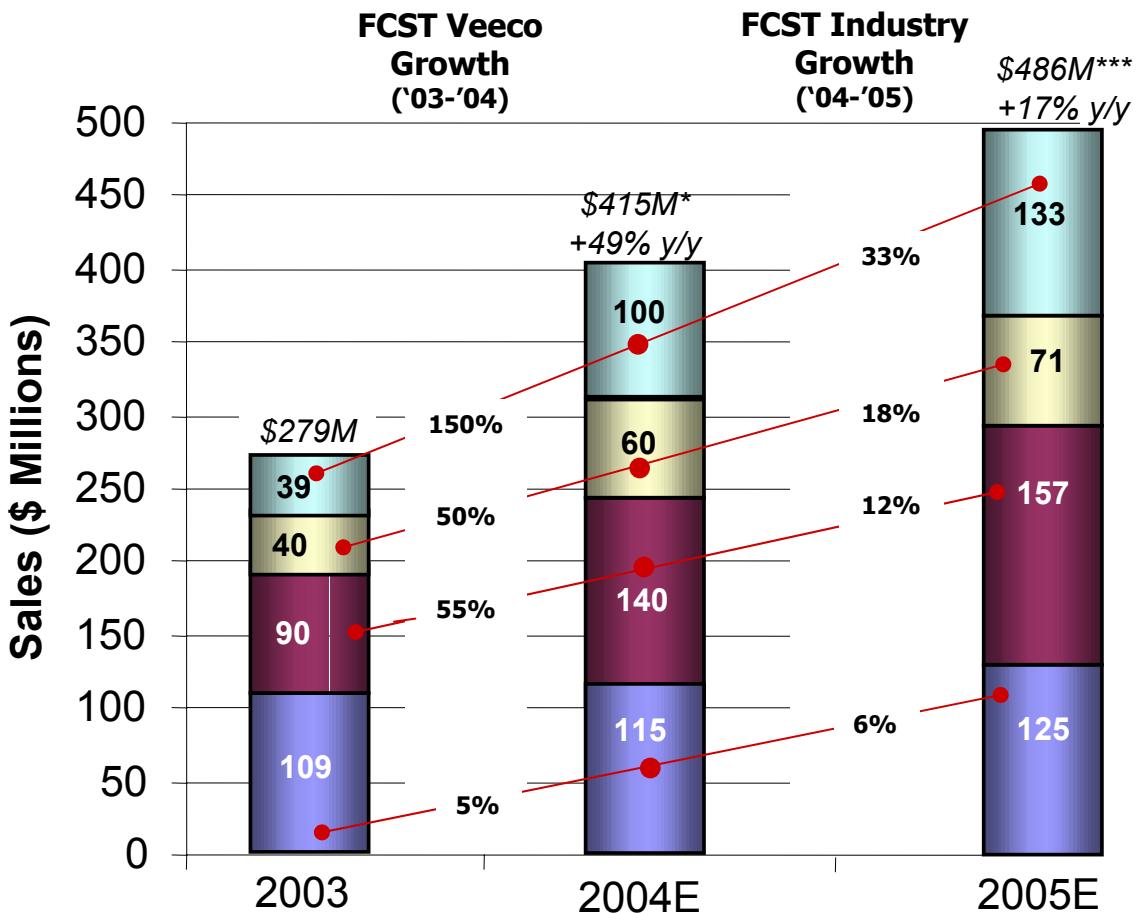
Wireless Mobile  
Consumer Products

# VEECO IN A BROAD MULTI MARKET RECOVERY

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# VEECO GROWTH OPPORTUNITY BY MARKET



**Compound Semi/Wireless**  
(Source:Strategies Unlimited/ Lighting)

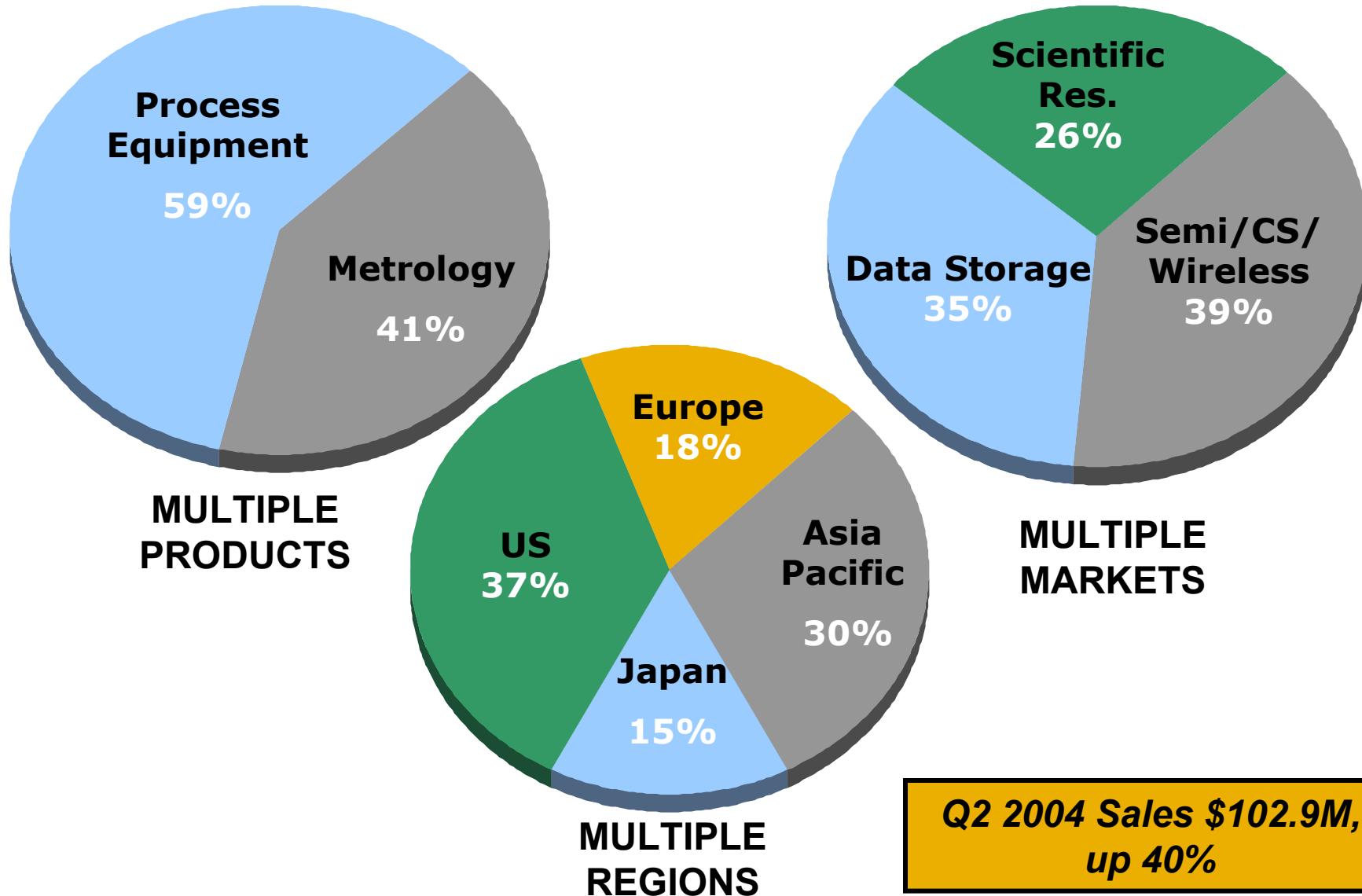
**Semiconductor**  
(Source:VLSI Semi Equipment)

**Data Storage**  
(Source:Trend Focus: TFMH)

**Scientific Research**  
(Source:GNP)

\* 2004 Analysts' Consensus  
\*\*\* Veeco 2005 Assuming Growth Per Industry Forecast

# DIVERSITY OF MULTIPLE MARKETS, PRODUCTS AND GEOGRAPHIC PENETRATION





**Solutions for a nanoscale world.**



## MARKETS

# YOUR NEXT COMPUTER....

*Losing the wires is only the beginning*



*There are 1.5 billion mobile phones in the world today. They browse the Web, take pictures, send email, watch movies and play games. Soon they could make your PC obsolete.*

# WIRELESS CONSUMER PRODUCT GROWTH WILL DRIVE NEXT WAVE OF EQUIPMENT SPENDING



- Convergence of Semi/Data Storage/Wireless creates a new class of high volume, high growth consumer products with explosive unit growth from 2004-2007
- Wireless mobile consumer products (including cell phones) will approach 2 billion units by 2010... Compared to the installed base of 500 million PC's

# HOME OF THE (NEAR) FUTURE

***By 2010 each household will own 10 HDD's\****

## Mobile Applications



MP4 Video



Laptop



Mobile Phone



Automobile  
GPS Navigation

**New Microdrive**  
(.85 dia.)



MP3 Music  
(i.e., iPod)

## Home Applications



Home Media Server



TiVo/DVR



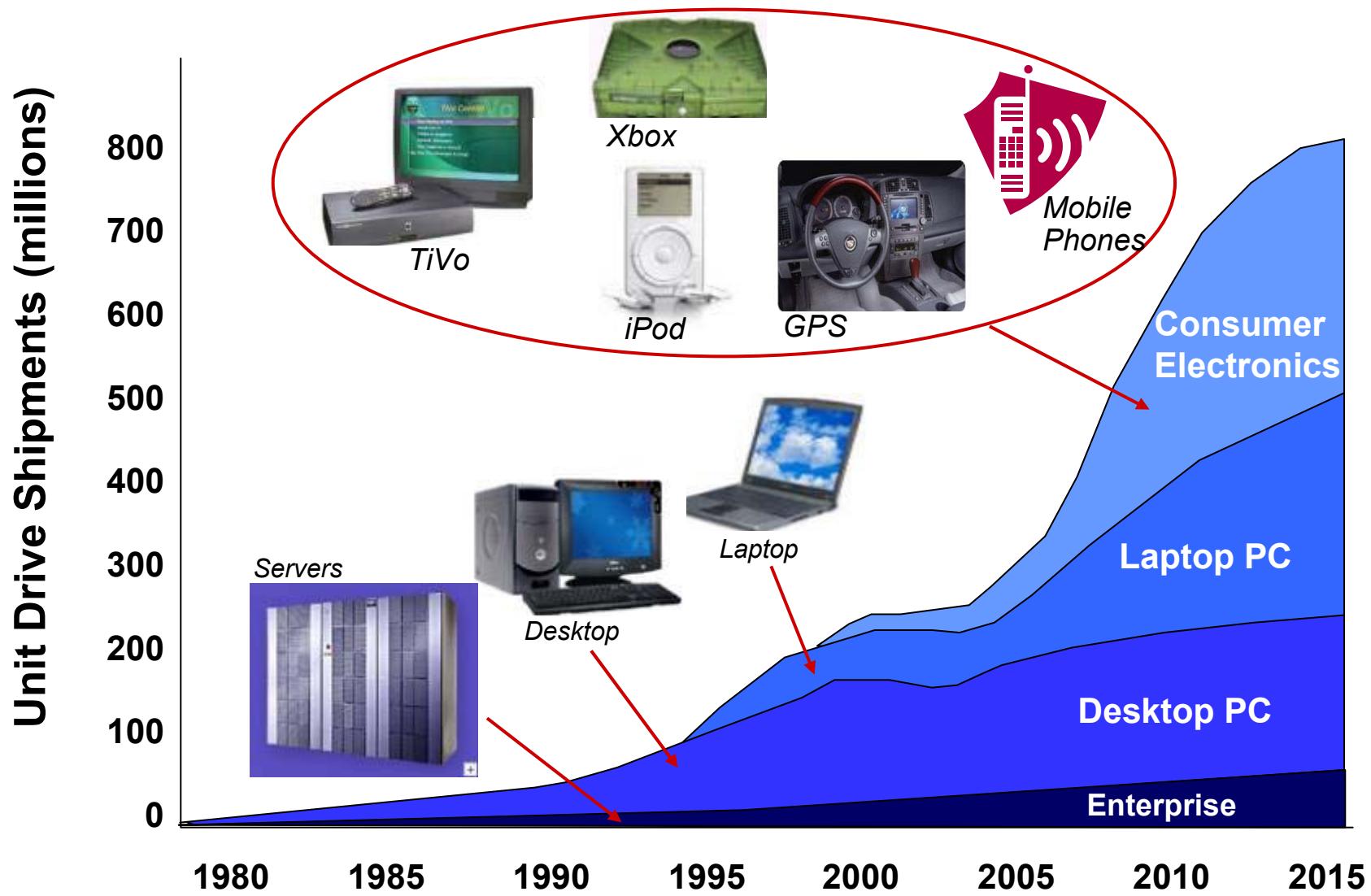
Entertainment  
Centers/PCs



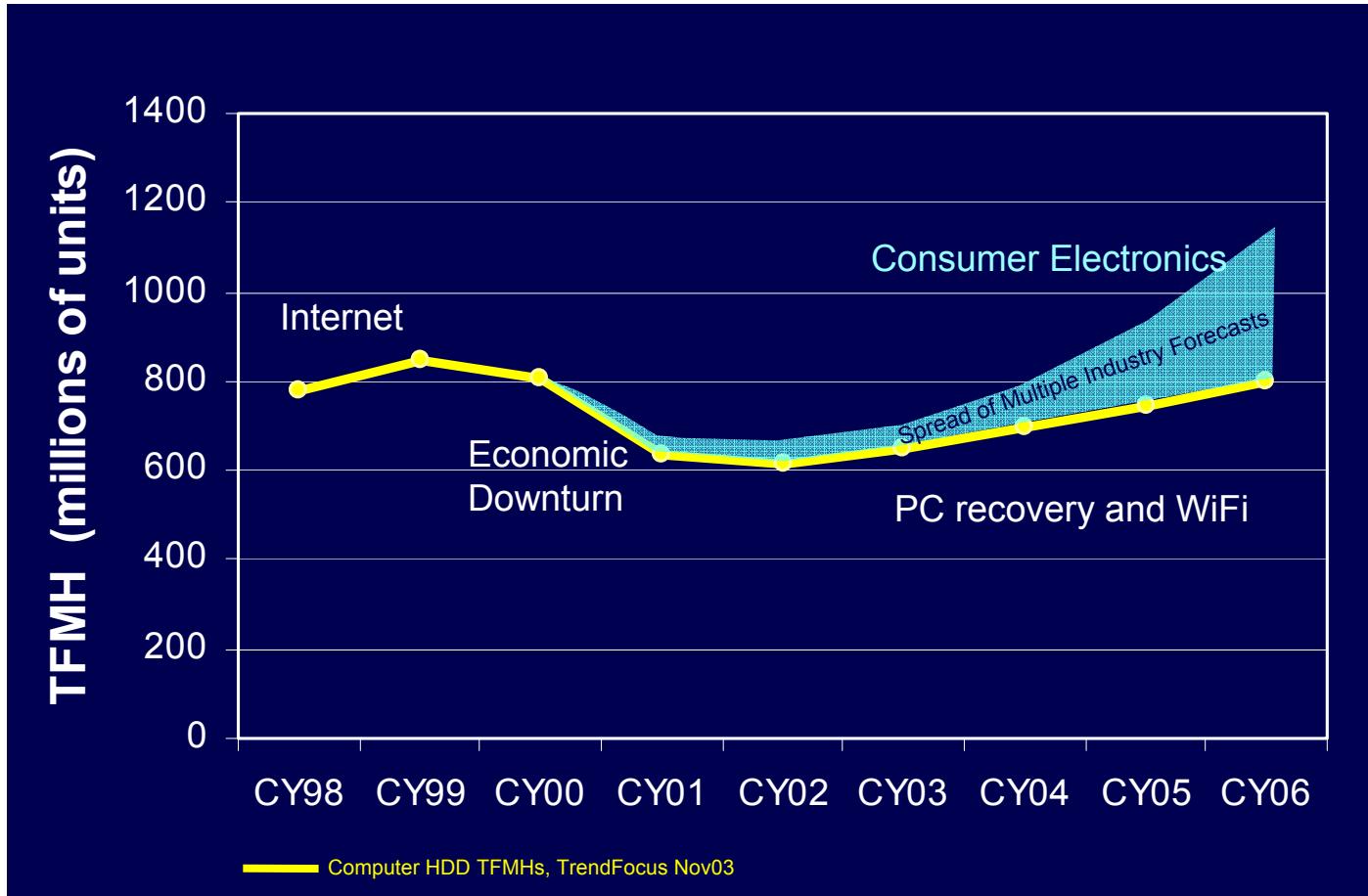
Game (Xbox,  
PlayStation, etc)

# HARD DISK DRIVE GROWTH STORY

*...opportunity for unit growth to double*



# TFMH FORECASTED GROWTH (REVENUE AND UNITS) TO REACH RECORD LEVELS



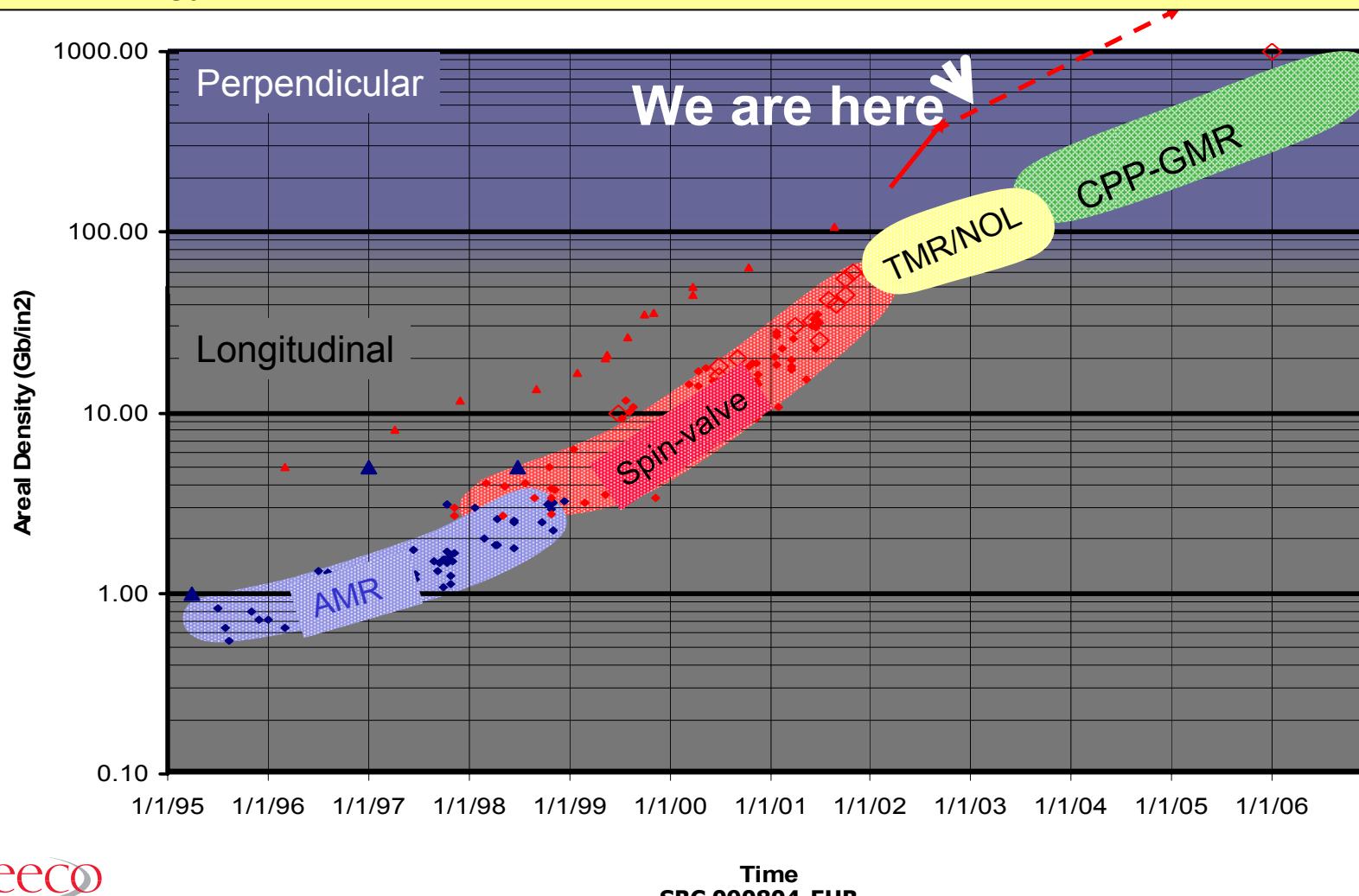
**CE Examples**

- MP3 (Microdrive)
- MP4 (Microdrive)
- Digital Photo (Microdrive)
- TiVo
- Automobile GPS
- Other

*“In 5-7 Years Consumer Electronic HDD could = PC shipments”*  
Bill Watkins, Seagate March 2004 Diskcon Singapore

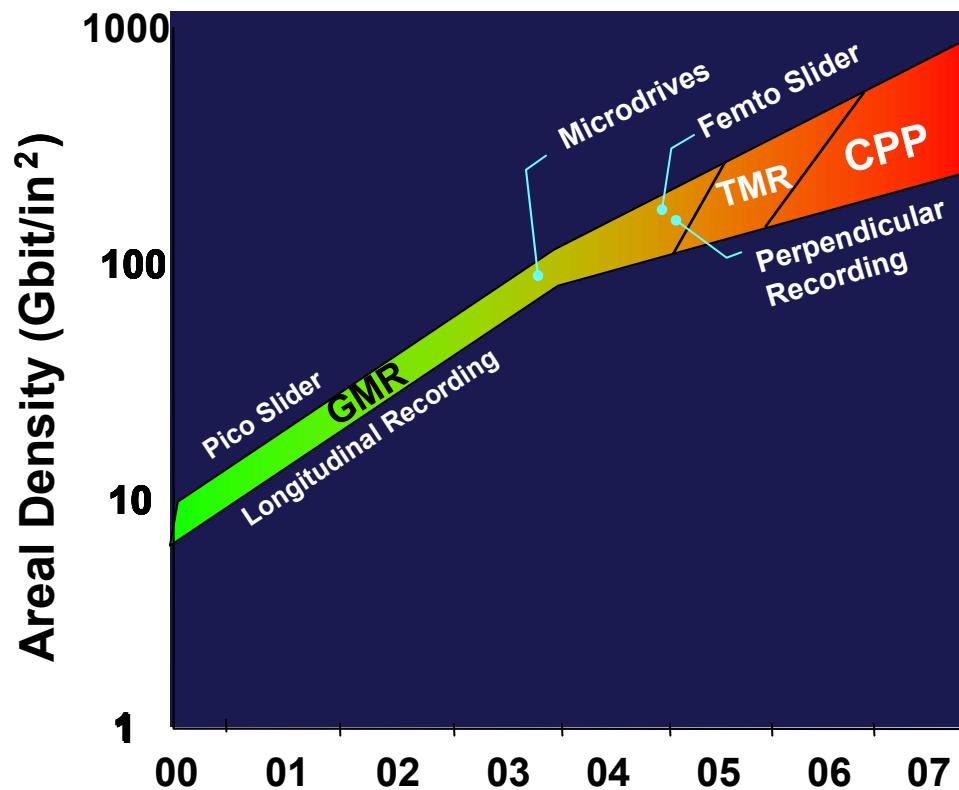
# VEECO'S DATA STORAGE OPPORTUNITY: SHRINKING DIMENSIONS REQUIRE "RE-TOOLING"

Areal density roadmap increases (50% per year) toward CPP (perpendicular recording) capable of 1 Terabit/in<sup>2</sup> (2006)... will require new manufacturing technology

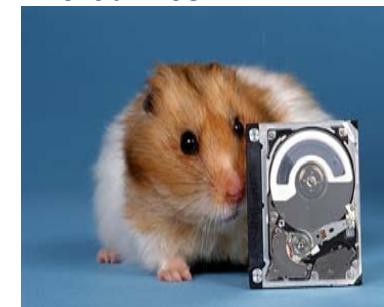


# UNPRECEDENTED READER, WRITER, SLIDER AND FORM FACTOR CHANGES OCCURRING SIMULTANEOUSLY

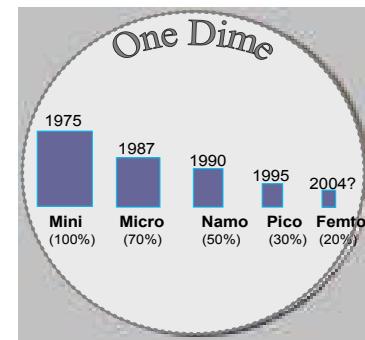
## *TFMH Technology Changes Drive Capital Equipment Growth*



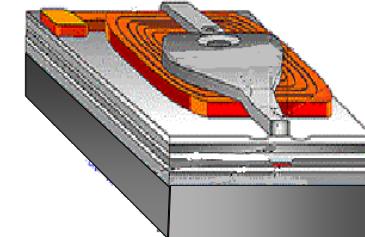
Microdrives



Slider Shrinks



Reader & Writer Development



# VEECO'S DATA STORAGE OPPORTUNITY: INDUSTRY'S BROADEST LINE OF ETCH, DEPOSITION AND METROLOGY

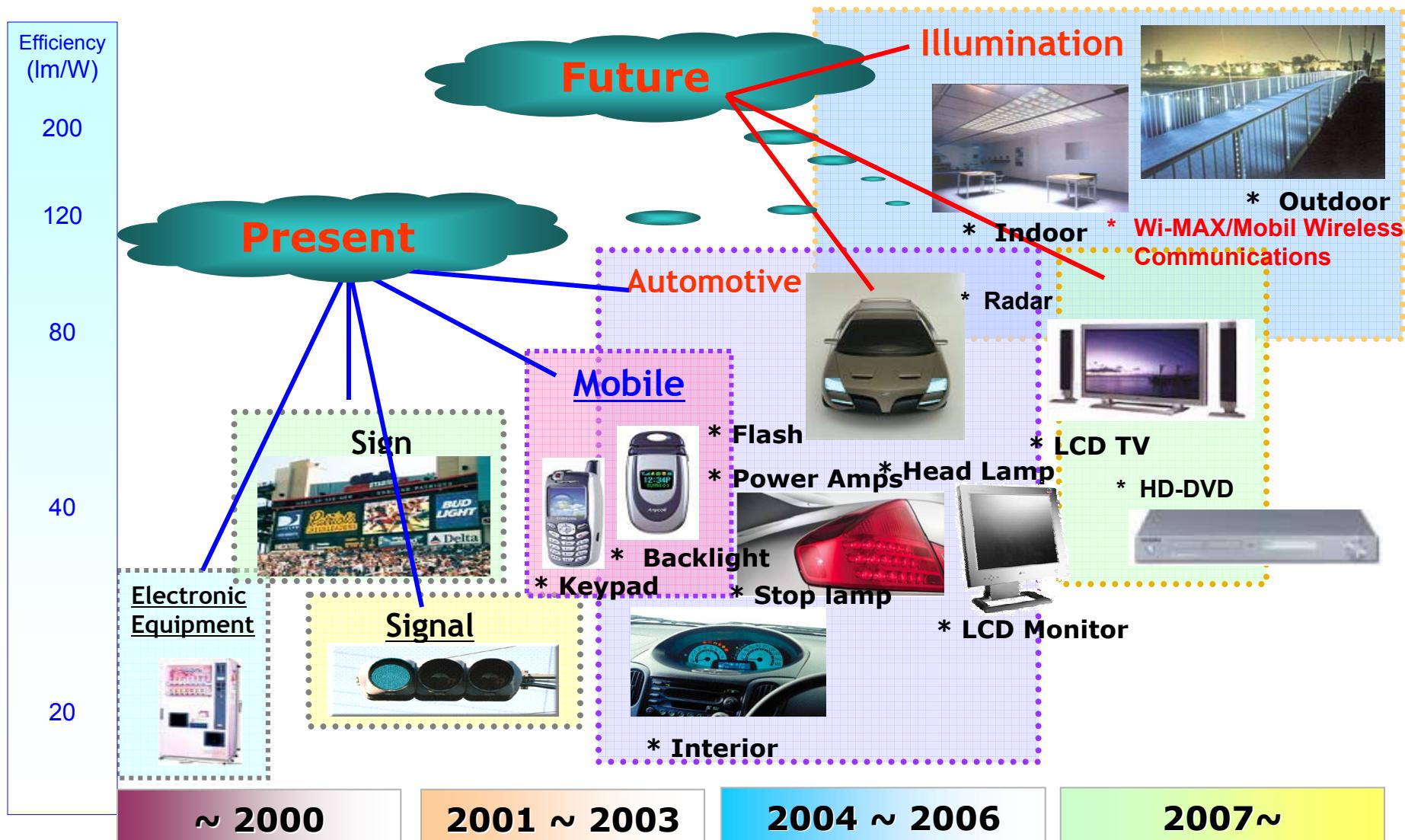
- Industry's broadest line of etch, deposition and metrology
- Industry's largest installed base (3,000 systems in the field)...Strong key account relationships
- All lapping, dicing and slicing ... total slider fab solution opportunity...first saw order
- Customers currently require upgrade and new technology...for 80 GB ramp, intro of 120GB and research for CPP... Veeco launches NEXUS etch and deposition solutions
- ***First half orders \$71.4M (up 45% vs '03)  
revenue \$67.0M (up 54% vs '03)***



## WIRELESS/TELECOM...Q2 record Veeco orders \$51.1M

- Veeco is the leading supplier of thin-film process equipment and metrology solutions to the compound semiconductor industry
  - Unique ability to provide both MBE and MOCVD – two epitaxial technologies that determine functionality and performance of devices
  - Strategy to become a “one-stop shop” for equipment
- Growth in camera/ cell phone applications. Fully featured phones include >20 compound semi devices per phone. Cell phone sales expected to nearly double to 750M units by 2008
- LED backlighting growth opportunity to include larger color display applications (mobile PC's and flat panel TV displays)
- New automotive applications, headlights, fog lights and instrument panel displays
- Record Q2 orders \$51.1M, total of 26 MOCVD and 7 MBE systems, included 6 multiple system orders
- ***First half orders \$90.2M up 346% vs '03  
revenue \$45.2M up 145% vs '03***

# HB LEDs...A MULTIPLE MARKET GROWTH OPPORTUNITY



Source: Samsung BLUE 2004

Veeco